AQA Computer Science A-Level
4.6.5 Boolean algebra

Flashcards

Simplify the following Boolean expression:

$$\overline{B} \cdot \overline{A + B}$$

Simplify the following Boolean expression: $\overline{\overline{B} \cdot \overline{A + B}}$

$$\overline{B} \cdot \overline{A}$$

What Boolean operation is represented with an overline?

What Boolean operation is represented with an overline?

NOT

Which has the highest order of precedence: AND, OR or NOT?

Which has the highest order of precedence: AND, OR or NOT?

NOT

Complete the Boolean identity:

$$C \cdot C =$$

Complete the Boolean identity: C • C =

C

Which Boolean operation is represented with a dot?

Which Boolean operation is represented with a dot?

AND

Simplify the following Boolean expression:

$$(C + (B + \overline{B})) \cdot D$$

Simplify the following Boolean expression:
$(C + (B + \overline{B})) \cdot D$

D

Complete the Boolean identity:

$$B \cdot 1 =$$

Complete the Boolean identity: B • 1 =

B

Apply one of De Morgan's Laws to the following Boolean expression:

$$\overline{A} \cdot \overline{B}$$

Apply one of De Morgan's Laws to the following Boolean expression: $\overline{A} \cdot \overline{B}$

$$\overline{A + B}$$

Which Boolean operation is represented with a plus?

Which Boolean operation is represented with a plus?

OR

Apply one of De Morgan's Laws to the following Boolean expression:

$$\overline{A \cdot C}$$

Apply one of De Morgan's Laws to the following Boolean expression: $\overline{A \cdot C}$

$$\overline{A} + \overline{C}$$

Apply a distributive rule to the following Boolean expression:

$$B \cdot (A + C)$$

Apply a distributive rule to the following Boolean expression: B • (A + C)

B • A + B • C